

I claim:

1. A transmission configuration, comprising:

a transmitter for emitting radiation, said transmitter having a plurality of individual lasers in a two-dimensional laser array, said individual lasers emitting radiation elements with coupled phases upon stimulation, said individual lasers being operated simultaneously; and

a multimode optical conductor for passing on the radiation emitted from said transmitter, said multimode optical conductor having a core with a core center;

said radiation elements entering said multimode optical conductor together, said radiation elements entering symmetrically about an optical axis of said multimode optical conductor; and

the emitted radiation entering said core predominantly away from said core center.

2. The transmission configuration according to claim 1, including a beamforming element through which said radiation elements pass before entering said multimode optical conductor.

3. The transmission configuration according to claim 2,
wherein said beamforming element enlarges an optical image of
said individual lasers on said core, causing the emitted
radiation to enter predominantly away from said core center.

4. The transmission configuration according to claim 1,
wherein said core has a core radius, and the emitted radiation
enters predominantly in a region between 10% and 50% of said
core radius.

5. The transmission configuration according to claim 1,
wherein said individual lasers are disposed at a distance of 1
to 2 μm from one another.

6. The transmission configuration according to claim 1,
wherein said two-dimensional laser array is formed by a
structured laser mirror having a reflection level differing in
regions of said individual lasers from other regions located
in between said regions of said individual lasers.

7. A transmission configuration, comprising:

a transmitter for emitting radiation, said transmitter having
a structured laser emitting radiation elements with coupled
phases upon stimulation;

GR 99 P 4044 CIP

said structured laser including at least one structure causing said radiation elements to produce a predetermined higher-
at least one
order oscillation state;


04-04-28

a multimode optical conductor for passing on the radiation elements emitted from said transmitter; and

said radiation elements entering said multimode optical conductor together.

8. The transmission configuration according to claim 7, wherein said structure is configured as at least one separating structure forming a plurality of lasers out of said structured laser, said plurality of lasers emitting radiation elements with coupled phases upon stimulation.

9. The transmission configuration according to claim 8, wherein lasers of said plurality of lasers are arranged in such close proximity to each other that said radiation elements form a higher-order conjoint oscillation mode.

10. The transmission configuration according to claim 7, wherein said structured laser includes at least one laser mirror and said structure is formed by a modification of said laser mirror.

11. The transmission configuration according to claim 7,
wherein said stimulation of said structured laser is carried
out electrically by an electrode configured to form said
structure.

12. The transmission configuration according to claim 7,
wherein said structure is formed upon a carrier material and
said structure is orientated in a specific direction relative
to a crystal axis of said carrier material.

13. The transmission configuration according to claim 7,
wherein said structure is configured to cause said radiation
elements to be emitted having more radiant power in higher-
order oscillation modes than in the ground mode of said
structured laser.

14. The transmission configuration according to claim 7,
wherein said structured laser emits radiation elements in
higher-order oscillation modes having their radiant power
predominantly away from an optical axis of radiation.

15. The transmission configuration according to claim 8,
wherein said separating structure reduces oscillation modes
having their radiant power predominantly about an optical axis
of radiation.

16. The transmission configuration according to claim 7,
wherein said radiation elements are emitted predominantly in
at least one of a predetermined distance and a predetermined
angle range to an axis of radiation.

17. The transmission configuration according to claim 7,
wherein said radiation elements are emitted predominantly
symmetrically about an optical axis of radiation.

18. The transmission configuration according to claim 7,
wherein said multimode optical conductor has a core with a
core center, and said emitted radiation elements enter said
core predominantly in a predetermined distance from said core
center.

19. The transmission configuration according to claim 7,
further comprising a beamforming element through which said
radiation elements pass before entering said multimode optical
conductor.

20. The transmission configuration according to claim 19,
wherein said multimode optical conductor has a core with a
core center, and said beamforming element enlarges an optical
image of said structured laser on said core, causing said
emitted radiation elements to enter predominantly in a
predetermined radial distance from said core center.

21. The transmission configuration according to claim 7,
wherein said structure has a shape of one of a circle and a
square forming an outer border to a part of said structured
laser emitting the radiation elements.

22. The transmission configuration according to claim 8,
wherein said separating structure has multiple rays leading
from a center of said structure to a border of said structure.

23. The transmission configuration according to claim 21,
wherein said structure is configured as at least one
separating structure forming a plurality of lasers out of said
structured laser, and said separating structure has multiple
rays leading from a center of said structure to said outer
border of said structure.